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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,857	07/03/2001	Koji Takahashi	1232-4733	3532

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EXAMINER

TRAN, NHAN T

ART UNIT PAPER NUMBER

2615

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/898,857

Applicant(s)

TAKAHASHI ET AL.

Examiner

Nhan T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15, 17, 26, 28, 29, 31 and 47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 31 and 47 is/are allowed.
- 6) ☒ Claim(s) 15, 17, 26, 28 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/25/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings received on 8/19/2004 are accepted. These drawings are Figures 23 & 24.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 8/25/2004 was filed after the mailing date of the Office Action on 6/4/2004. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is considered by the examiner.

Response to Arguments

3. Applicant's arguments, see amendment, filed 8/19/2004, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection of claims 15, 17, 26, 28 & 29 is made in view of Inagaki (US 6,665,097) and Miyauchi et al (US 6,424,433).

Claim Objections

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4. Claim 26 is objected to because the claim recites the limitation "the memory" in line 8 of the claim. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 15 & 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Inagaki (US 6,665,097).

Regarding claim 26, Inagaki discloses a method of controlling an image sensor system (Fig. 2) which comprises an image sensor element (CCD 102) for photoelectrically converting incoming light from an image sensing optical system (lens 106), wherein information that pertains to a relative position of the image sensing element with respect to the image sensing optical system is stored and a position adjuster is controlled to adjust the relative position of the image sensing element with respect to the image sensing optical system on the basis of the information, the method comprising: a temperature measurement step, wherein the memory stores an adjustment amount of the image sensing element for each of a plurality of temperatures.

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See Fig. 2; **col. 4, lines 13-50**, wherein “information that pertains to a relative position of the image sensing element with respect to the image sensing optical system” and “an adjustment amount of the image sensing element for each of a plurality of temperatures” are stored as a **reference table** that is a part of correction program in ROM/RAM 325 (**col. 3, lines 40-50**) for each of a plurality of temperatures for implementing the correction of focus and magnification errors by driving the lens 106 and CCD 102 as shown in Figs. 5-10.

Regarding claim 15, Inagaki discloses an image sensing system (Fig. 2) comprising:

- an image sensing element (CCD 102) that photoelectrically converts incoming light from an image sensing optical system (106);
- a memory (ROM/RAM 325) that stores information that pertains to a relative position between the image sensing element and the image sensing optical system (see the analysis of claim 26, wherein the ROM/RAM 325 inherently stores a **reference table**);
- an adjuster (104 under control of CPU 323) that adjusts the relative position by driving the image sensing element (CCD 102) with respect to the image sensing optical system (col. 4, line 61 – col. 5, line 5);
- a temperature sensor (118),

wherein the adjuster drives the image sensing element based on pre-stored information read out from the memory to adjust the relative position and the pre-stored information is obtained by placing a test pattern (test chart 114) in front of the image sensing optical system (col. 3, lines 55-64 and col. 4, lines 1-9 and *note that the claim does not require any relationship between the temperature sensor and optical system adjustment using a test pattern*);

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wherein the memory stores an adjustment amount of the image sensing element for each of a plurality of temperatures (see the analysis of claim 26).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 17, 28 & 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inagaki (US 6,665,097) in view of Miyauchi et al (US 6,424,433).

Regarding claim 17, Inagaki discloses all the limitations of claim 17 as analyzed in claims 15 & 16 except for a disclosure of a field angle manipulation unit for manipulating a field angle (note that field angle adjustment lens is lens 106 which is used to adjust magnification of an object as shown in Fig. 7; col. 4, lines 36-50).

However, it is well known in the art that a copy machine may include a zoom lens and its corresponding manipulation unit to change magnification or resolution of an object as disclosed by Miyauchi in col. 1, lines 32-35, 45-48.

Therefore, it would have been obvious to one of ordinary skill in the art to implement a field angle manipulation unit for changing a zoom ratio of an object so that a user would select a desired magnification or resolution before capturing an image of an object.

Regarding claim 28, see the analysis of claim 17, wherein a step of detecting a field angle of the field angle adjustment lens is inherent in Inagaki in order to correct the position of the lens as disclosed.

Regarding claim 29, see the analysis of claim 17.

Allowable Subject Matter

7. Claims 31 & 47 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claim 31, the prior art of record also fails to teach or fairly suggest the combination of all limitations required in the claim that includes "...wherein the image sensing system has a first memory that stores an adjustment amount used to correct a tilt of an optical axis of the image sensing optical system with respect to a reference plane, and a second memory that stores an adjustment amount used to correct a tilt of the image sensing element with respect to a reference line, and upon the adjustment, the adjustment amounts are read out from the first and second memories, the readout adjustment amounts are merged, and adjustment is done using the merged adjustment amount."

Regarding claim 47, the prior art of record also fails to teach or fairly suggest the combination of all limitations required in the claim that includes "...a memory that stores an adjustment amount used to correct a tilt of an optical axis of said image sensing optical system

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with respect to a reference plane to have a predetermined relative state; and a temperature sensor, wherein **said** memory stores an adjustment amount for each of a plurality of temperatures.”

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (703) 605-4246. The examiner can normally be reached on Monday - Thursday, 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Andrew B Christensen can be reached on (703) 308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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NT.

A handwritten signature in black ink, appearing to read 'Andrew Christensen', is written over a horizontal line.

ANDREW CHRISTENSEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600